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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,611	07/13/2001	Swam S. Kalsi	05770-158001 / ASC-554	3709

7590

11/26/2002

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EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 11/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/905,611

Applicant(s)

KALSI ET AL.

Examiner

Dang D Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 15-20 and 39-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 21-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 15-20 are 39-81 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected groups, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.
2. Applicant's election without traverse of claims 1-14 and 21-38 in Paper No. 6 is acknowledged.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5-9, 12-14, 21, 22, 25-29, 32-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Shoykhet (U. S. Pat. No. 6,129,477).

Regarding claim 1, Shoykhet shows a superconducting rotating machine comprising:

- A stator assembly (32, Figure 4) including at least one stator coil assembly (56) having a first predefined length (end turn to end turn); and

- A rotor assembly (34) configured to rotate within said stator assembly and spaced from said stator assembly by a gap, said rotor assembly including at least one superconducting rotor winding assembly (80) which, in operation, generates a magnetic flux linking said stator assembly;
- Wherein said rotor assembly includes an asynchronous field filtering shield (82) having a second predefined length (between 74, 76) which is less than said first predefined length, wherein said shield (82) is positioned between said stator assembly and said rotor assembly.

Regarding claims 2, 22 and 36, it is noted that Shoykhet also shows said asynchronous field filtering shield being constructed of a non-magnetic material.

Regarding claims 5-8 and 25-28, it is noted that Shoykhet also shows said first predefined length being a differential length greater than said second predefined length, said differential length being a percentage of said first predefined length, said differential length being a percentage of said second predefined length, and said differential length being a fixed length.

Regarding claims 9 and 29, it is noted that Shoykhet also shows said at least one stator coil assembly being constructed using a copper non-superconducting material.

Regarding claims 12 and 32, it is noted that Shoykhet also shows a refrigeration system (36) for cooling said at least one superconducting rotor winding assembly.

Regarding claims 13 and 34, it is noted that Shoykhet also shows said at least one stator coil assembly including a center section and a pair end-turn sections positioned at distal ends of said center section (Figure 4).

Regarding claims 14 and 35, it is noted that Shoykhet also shows said asynchronous field filtering shield (82) being positioned between said center section of said at least one stator coil assembly and said at least one superconducting rotor winding assembly, wherein said end-turn sections of said at least one stator coil assembly extend beyond said asynchronous field filtering shield (Figure 4).

Regarding claim 21, the claim is a combination of claims 1, 13 and 14. As a result, it is also rejected.

Regarding claim 33, it is noted that Shoykhet also shows a stator assembly, configured to accept a superconducting rotor assembly having an asynchronous field filtering shield of a first predefined length, wherein said shield is positioned between said stator assembly and said rotor assembly comprising at least one stator coil assembly (Figure 2) having a second predefined length (of 56), which is greater than said first predefined length (of 82).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3, 4, 23, 24, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoykhet in view of Hooper et al.

Regarding claims 3, 23 and 37, Shoykhet shows all of the limitations of the claimed invention except for said non-magnetic material being copper.

Hooper et al. show said non-magnetic material (21) being copper for the purpose of reducing flux.

Since Shoykhet and Hooper et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make said non-magnetic material of copper as taught by Hooper et al. for the purpose discussed above.

Regarding claims 4, 24 and 38, it is noted that Hooper et al. also show said non-magnetic material (21) being aluminum.

8. Claims 10, 11, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoykhet in view of Herd et al.

Regarding claims 10 and 30, Shoykhet shows all of the limitations of the claimed invention except for said at least one superconducting rotor winding assembly being constructed using a high-temperature superconducting material.

Herd et al. show said at least one superconducting rotor winding assembly being constructed using a high-temperature superconducting material for the purpose of making superconducting rotor.

Since Shoykhet and Herd et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make said at least one superconducting rotor winding assembly with a high-temperature superconducting material as taught by Herd et al. for the purpose discussed above.

Regarding claims 11 and 31, it is noted that Herd et al. also show said high temperature superconducting material being chosen from the group consisting of: thallium-barium-calcium copper-oxide; bismuth-strontium-calcium-copper-oxide; mercury-barium-calcium-copper-oxide; and yttrium-barium-copper-oxide.

Information on How to Contact USPTO

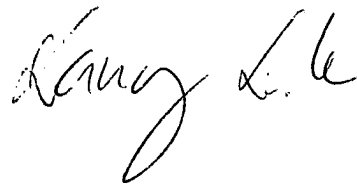
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
November 24, 2002

DL

A handwritten signature in cursive script, appearing to read "Nestor Ramirez".